DATABASE QUERY OPTIMIZATION APPARATUS AND METHOD THAT REPRESENTS QUERIES AS GRAPHS

ABSTRACT OF THE DISCLOSURE

A database query optimizer constructs a graph comprising nodes, relations, and expressions. The query optimizer then constructs execution plans for sub-parts of the graph. The combination of execution plans make up the overall execution plan for the query. The execution plan information is appended to the graph itself, allowing changing an execution plan in one portion of the graph without necessarily changing execution plans in other portions of the graph. By representing a query using the graph of the preferred embodiments that includes execution plan information, the query optimizer is able to evaluate the execution plans of different options quickly and efficiently, thereby enhancing the performance of the query optimizer.